Annual Report 1979

#### The Company

Eldorado Nuclear Limited is a commercially-oriented federal Crown corporation, primarily engaged in the mining and refining of uranium and related activities in the nuclear fuel cycle.

The Company's Beaverlodge Operations, near Uranium City in northwestern Saskatchewan, mine uraniumbearing ore and mill it to produce uranium concentrates (U<sub>3</sub>0<sub>8</sub>) for markets in Canada and throughout the world. The refinery, located at Port Hope, Ontario, processes uranium concentrates to produce the ceramic uranium dioxide powder (UO2) used in CANDU reactors, as well as uranium hexafluoride (UF<sub>6</sub>) needed as feed material for enrichment plants and ultimate use in light water power reactors. The Port Hope facilities also produce depleted uranium metal for radiological shielding and other applications. The exploration division, research and development division and the Company's head office are located in Ottawa.

The Company has two whollyowned subsidiaries. Eldorado Aviation Limited services the mining and exploration divisions. Eldor Resources Limited is engaged in developing new uranium properties in northern Saskatchewan.

The objective of Eldorado Nuclear Limited is to make a growing contribution toward satisfying Canadian energy requirements, while maximizing Canada's position in international markets for nuclear fuel.

# Highlights

Financial (\$ in thousands)	1979	1978
Sales Earnings before taxes and	\$111,498	\$124,046
extraordinary item  Net Earnings	\$ 6,093 \$ 398	\$ 28,185 \$ 17,618
Return on capital employed Capital expenditures Working capital	0.1% \$ 56,296 \$ 18,376 \$183,093	7.8% \$ 38,196 \$ 8,381 \$130,366
Long-term debt Shareholder's equity	\$ 80,104	\$ 79,706
Production (in thousands)		
Uranium oxide (lbs. U <sub>3</sub> O <sub>8</sub> ) Uranium hexafluoride (lbs. U) Uranium dioxide (lbs. U)	1,006 9,890 2,919	1,283 7,096 2,129
Employees at year end		
Total Payroll and benefits (\$ in thousands)	1,610 \$ 42,485	1,499 \$ 31,645

# **Eldorado Nuclear Limited and the Nuclear Fuel Cycle**

Mining: Ore is mined at Bea	verlodge Operations in northwe	estern Saskatchewan
Milling: Ore is milled to prod	uce uranium concentrates (U <sub>3</sub> C	D <sub>8</sub> ) at the Beaverlodge mill
$\nabla$		
Refining: Uranium concentra	ates and depleted uranium are	processed at Port Hope, Ont
$\nabla$		$\overline{}$
UO₂ Uranium dioxide	<b>UF</b> <sub>6</sub> Uranium hexafluoride	Metallurgical Products
$\nabla$		
Fuel fabrication in Canada	Export for enrichment	
CANDU reactors	Fuel fabrication	
	Light water reactors	

## Report to the Shareholder

The Honourable Marc Lalonde P.C., Q.C., M.P., Minister of Energy, Mines and Resources

#### Dear Sir:

On behalf of the Board of Directors, I hereby present the Annual Report of Eldorado Nuclear Limited and its wholly-owned subsidiaries, Eldorado Aviation Limited and Eldor Resources Limited, for the fiscal year ended 31 December 1979.

Gross revenue from the sale of the Company's products and services amounted to \$111,498,000 in 1979, the second highest level in Eldorado's history. This compares with \$124,046,000 in 1978. The ten percent reduction was primarily due to a failure to meet production objectives and the obligation to continue deliveries under long-term contracts entered into during a period when lower prices prevailed. Consolidated net earnings amounted to \$398,000 compared with \$17,618,000 in 1978.

This dramatic decline in net profits was primarily due to the necessity to increase the reserve for future losses

under existing uranium concentrate sales contracts by \$12.2 million.

As reported previously, the record profits achieved during 1978 were part of a planned strategy to assist in the financing of Eldorado's long-term capital expansion program. Market demand in that year permitted the Company to sell, on a spot basis at advantageous prices, uranium concentrates inventory built up during earlier years.

Significant progress was made during 1979 toward the completion of major capital projects designed to more than double Eldorado's uranium mining and processing capacity during the early 1980s. The capital program proceeded on budget and on schedule. Expenditures totalled \$56.3 million during the year.

While the future prospects continue to look encouraging, the Company's financial results for the year were disappointing. Production objectives were not realized in the mining and refining divisions. As discussed below, corrective measures have been taken to overcome production shortfalls and to return the

#### Revenue

\$111,498,000
\$124,046,000
\$ 68,623,000
\$ 47,708,000
\$ 48,499,000

MARKET TO THE			

#### **Net Earnings**

1979	\$ 398,000
1978	\$17,618,000
1977	\$ 6,933,000
1976	\$ 3,073,000
1975	\$ 9,715,000



Company to a more acceptable level of profitability. During the final quarter of the year, these measures resulted in production at both divisions reaching the higher levels projected for 1980 and therefore give us some confidence in our ability to meet those objectives.

The 1979 production shortfalls at the Beaverlodge Operations were primarily attributable to two factors—a continuing shortage of skilled underground miners and delays by the provincial government in licensing

satellite mining operations.

In recent years, mine production at Beaverlodge has been hampered by the general shortage of skilled miners in Canada. Despite extensive recruiting, training and housing programs designed to maintain a complement of experienced personnel, the shortage has continued. In 1979, Eldorado sought without success federal and provincial approvals to recruit experienced workers in other countries because they were not available in Canada. In the absence of these approvals and to reduce its vulnerability to these labour shortages, the Company has embarked on a \$2 million mechanization program. This program was progressing satisfactorily by year-end. It is expected to result in improvements in mine production and productivity in 1980 and in future years as it is fully implemented. However, the Company must now compete for skilled trades and maintenance personnel in the expanding industrial sector of western Canada's economy.

The delay in Saskatchewan government authorizations postponed Eldorado's plan to bring the fully-developed ore reserves at the Dubyna property into production. This satellite orebody on the Beaverlodge property would have contributed easily accessible open pit and underground ore to the Beaverlodge mill. Production was scheduled to begin in February. However, the approval process delayed this until October.

Because of the high fixed costs associated with the large infrastructure required to operate in a remote location, production shortfalls at Beaverlodge resulted in substantially higher unit costs during the year. Furthermore, most of the production achieved in 1979 was only sufficient to meet deliveries under long-term, lower-priced contracts negotiated prior to 1974. The lost production, which could have been sold at current prices, resulted in a lower average unit selling price than was originally anticipated for 1979.

In addition, the average unit production cost in 1979 was above the average unit selling price for concentrate deliveries scheduled for 1980. Generally accepted accounting principles require that any future loss must be deducted from revenues when it is first identified. Thus, the 1979 profit has been reduced by \$12.2 million in recognition of the loss anticipated on the 1980 deliveries.

At Port Hope, the production of uranium hexafluoride (UF<sub>6</sub>) for lightwater reactors and uranium dioxide (UO<sub>2</sub>) for the CANDU reactors reached record levels during 1979. UF, production exceeded the previous record in 1977 by 16 percent while UO<sub>2</sub> production was 37 percent higher than the 1978 level. Despite these achievements, UF<sub>6</sub> production was less than planned owing to technical problems associated with the introduction of new equipment and processes. Financial performance of the division suffered as a result. In addition, the division had to fulfill delivery commitments under some old contracts calling for conversion services at low prices.

#### **Key Lake**

Significant progress was made during 1979 on plans for the development of the large, high-grade uranium ore deposits at Key Lake, located along the southern rim of the Athabasca sandstone basin in northern Saskatchewan. Eldorado's one-sixth interest in the deposit is held by a wholly-owned

subsidiary, Eldor Resources Limited.

During the year, the three companies in the Saskatchewan Uranium Joint Venture—Saskatchewan Mining Development Corporation, Uranerz Exploration and Mining Limited, and Eldor-established Key Lake Mining Corporation as the organization to plan, develop and operate the proposed open pit mine and mill.

Early in 1979 Eldor completed the sale of two million pounds of uranium concentrates borrowed under commercial terms from the federal stockpile administered by Uranium Canada, Limited. Proceeds from the sale were used to complete the purchase of a one-sixth equity interest in the joint venture at a cost of approximately \$95 million. The borrowed uranium will be returned to the stockpile out of Eldor's one-sixth share of Key Lake production.

A comprehensive feasibility report on the project has been completed. The estimate of ore reserves has increased and indicates the deposit contains in excess of 150 million pounds of uranium. Therefore, the project is able to support an annual production rate in excess of 10 million pounds. Eldor's share of production will result in a doubling of concentrates available to the Company in the mid-1980s and beyond. Although capital costs associated with the project are high, the unit costs are projected to be lower than those experienced at Beaverlodge and other existing Canadian uranium mines. The current levels of reserves and production have also increased the profit potential of this acquisition.

An Environmental Impact Statement has been submitted to the Government of Saskatchewan by Key Lake Mining Corporation. Public hearings on the environmental and social effects of the project are scheduled for early in 1980. Given timely government authorizations of the project, initial production is scheduled for the Spring of 1983.

#### **New Refineries**

Another major capital project is the new uranium hexafluoride (UF<sub>6</sub>) conversion plant now under construction in Hope Township, nine kilometres west of the existing refinery at Port Hope

In February, the Federal Environmental Assessment and Review Office (FEARO) of the Department of the Environment presented its report to Cabinet concerning each of three sites under consideration by the Company for construction of Canada's second refining/conversion facility. FEARO found that each of the sites—at Hope Township, Dill Township near Sudbury and Blind River—was environmentally acceptable and that the project was supported in each case by local levels of government.

Following an extensive review of the project, the Company announced in July that, because of anticipated lower capital and operating costs, the new facilities would be located in Hope Township. Negotiations for the purchase of land were completed and a development agreement was concluded with the township. Construction of an access road and extensive preparation of the site were completed in December. Plant construction is scheduled to begin in

early 1980.

The total cost of the project is estimated at approximately \$130 million, of which about \$17 million had been spent by the end of 1979.

The new plant has the potential for tripling the Company's UF<sub>6</sub> conversion capacity. This larger modern plant should result in lower unit costs than those experienced at Port Hope and improved profitability for the division.

The Hope Township and existing Port Hope plants will have the combined capacity to produce UF, containing in excess of 30 million pounds of uranium annually. The total will be sufficient to ensure further processing capacity in Canada for the country's increasing uranium mine production expected in the early 1980s. When the new facility is brought

into production, scheduled for mid-1982, Eldorado will operate between 20 and 25 percent of the western world's UF<sub>5</sub> conversion capacity.

The Company is also well advanced on studies of a new conversion plant in Saskatchewan. A complete Environmental Impact Statement was submitted to Environment Canada during the summer concerning the environmental and social effects of constructing a refinery in the Rural Municipality of Corman Park, northeast of Saskatoon. The refinery would process uranium concentrates from new Saskatchewan mines scheduled for development in the mid- and late-1980s.

Environment Canada announced that public hearings would be conducted in the region during January 1980. If the site is found to be acceptable to the federal and provincial governments, the Company will prepare detailed cost estimates and a comprehensive feasibility assessment, prior to making a final decision on the project.

#### **Exploration**

The primary objective of the Exploration Division is to expand Eldorado's resource base.

In 1974, the Company began an aggressive exploration program in many regions of Canada, with particular emphasis on programs designed to realize the geological potential of northern Saskatchewan. Since that time, Eldorado has spent more than \$20 million in all phases of exploration, in most cases through joint ventures with other companies, including major Canadian and foreign resource companies and electrical utilities. The joint ventures in which Eldorado has participated have spent \$40 million in total. During recent years, these total joint venture expenditures have accounted for approximately 10 percent of all uranium exploration spending in Canada. In many instances, Eldorado's participation has added an important Canadian component to the ownership of these joint ventures.

During 1979, the Company participated in 28 projects, 22 of them joint ventures with other companies (see table). A total of \$11.8 million was spent on these projects. Eldorado's share was \$6.6 million. The Company's field activities ranged from Newfoundland to the Yukon, including eight provinces and both territories. Approximately 65 percent of Eldorado's total exploration expenditures during the year were concentrated on holdings of 2,842,778 acres (950,191 net acres) in the Athabasca basin of northern Saskatchewan and northern Alberta. This large land position is concentrated along the inner rim of the basin and is considered to be one of the Company's most important assets. Included in the Eldorado holdings is the one-sixth interest in the mineral dispositions acquired with the Key Lake purchase.

The overall program is reaching a more mature phase whereby approximately 40 percent of the annual expenditures are now dedicated to drilling on properties previously identified as having high potential for economic quantities and concentrations of uranium-bearing minerals. Despite the current financial constraints facing the Company, an aggressive level of exploration activity is being maintained, reflecting our confidence in the uranium potential of the land holdings.

#### **Mining Operations**

The management of Eldorado's mine, mill, and northern transportation activities, as well as the project planning, personnel and purchasing functions which support those activities, have historically been centred in Edmonton. In September, the Company announced that the Western Operations management group and the aviation division would be relocated to Saskatoon during 1980.

During the year, ore milled at Beaverlodge increased to 312,037 tons

**Exploration Activities**Joint venture exploration participants and distribution of activities as of December 31, 1979

Company	Yukon	Northwest Territories	British Columbia	Alberta	Saskatchewan	Ontario	Quebec	New Brunswick	Nova Scotia	Newfoundland
Amok Limitée					0					
Aquarius Mines Limited					0					
Canadian Nickel Company Limited						0				
Canadian Occidental Petroleum	0							Till.		
Central Electricity Generating Board					0		0	FUE		0
Comaplex Resources International Ltd.					0					
Consolidated Durham Mine & Resources Ltd.								0		
Conwest Exploration Company Limited					0		0			0
Denison Mines Limited					0					
E & B Explorations Limited					0					
Electrowatt Limited					0		0			0
Empresa Nacional del Uranio, S.A.		2			0		0			0
Famok Limitée					0					
Goldak Exploration Technology Limited					0					
Highwest Developments Limited					0					
Imperial Oil Limited		0	Charles							
Noranda Mines Limited						0				
Norex Resources Limited					0					
Power Reactor & Nuclear Fuel Development					0					
Saskatchewan Mining Development Corp.					0					
Seru Nucléaire Limitée					0		0			
Shell Canada Resources Limited		1		0						
Société de développement de la Baie James							0			
SOQUEM							0			
Suncor Incorporated					0					
Texasgulf Canada Limited			(2/1/)			0				
Uranerz Exploration & Mining Limited			11.10		0					
Eldorado (100%)	0	0	0	0	0	0			0	

from 306,600 tons in 1978 (see chart), but the grade of the ore dropped to 0.185 percent from 0.23 percent the previous year. The lack of developed high-grade working stopes, plus delays in bringing the Dubyna property into production, caused the drop in the average grade of ore mined. Recoveries in the mill declined to 86.9 percent from 92 percent. These factors led to a decline in production of uranium concentrates ( $U_3O_8$ ) to 1,006,000 pounds from 1,283,000 in 1978 (see chart).

Overall development work declined during the year because of labour shortages. Drift development fell to 9,155 feet from 15,857 feet. Raise development decreased to 4,226 feet from 4,767 feet. Diamond drilling totalled 61,511 feet, down from 92,000 feet in 1978. Measured and indicated reserves at yearend above the 30th level were 4,100,000 tons as compared to 4,467,000 tons reported a year earlier. Average grade remained unchanged at 0.20 percent. Measured and indicated ore reserves mineable at current prices and costs above the 34th level were 3,804,000

tons at a grade of 0.211 percent.

Among operating personnel at Beaverlodge, the mean total exposure to radon daughters, a product of decaying uranium, was 0.8 Working Level Months (WLM) in 1979 compared with the regulatory permissible level of 4.0 WLM per year. No employee exceeded the level.

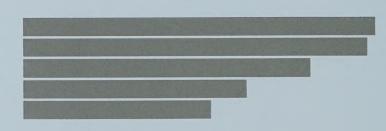
The introduction of mechanized mining techniques resulted in higher productivity on those levels using the new methods and improved overall results during the final quarter. Additional equipment is to be delivered early in 1980.

The Beaverlodge mine, now at a depth of approximately 5,500 feet, is among the deepest of all mines operating in Canada. As reported a year ago, geological information indicates a possible extension of known ore zones below existing levels. During 1979, the Company assessed the feasibility of deepening the mine and has decided to develop ramps from the 32-level, near the projected extension of the ore zone.

In recent years, the Company has

#### Ore Mined (tons)

1979	312,000
1978	307,000
1977	256,000
1976	196,000
1975	168,000



#### U<sub>3</sub>O<sub>8</sub> Production (pounds)

1979	1,006,000
1978	1,283,000
1977	1,185,000
1976	1,188,000
1975	986,000



invested heavily in improving and expanding the infrastructure required to support the producing operations. During the past four years, Eldorado has built 255 new housing units, increasing the number of units owned by the Company to 544. The quality of housing available to Beaverlodge employees is now fully comparable with that available in other Canadian communities and no further housing projects are planned.

The largest construction project, the \$25 million Charlot River hydro plant, was nearing completion on schedule and on budget at the end of 1979. The first of two 7,500 horsepower generators will be put into service in January 1980 and the second is scheduled to come on line in the spring. When completed, the plant will increase the Company's hydroelectric power production by 84 percent to 150 million kilowatt-hours annually, thus reducing the Company's dependence on high-cost diesel fuel and heating oil.

#### **Transportation**

Eldorado Aviation Limited continued to provide most of the transportation support for the Beaverlodge Operations during 1979, although the rate of growth in requirements declined as a result of a levelling out in the Company's northern construction activities.

The number of ton-miles flown increased by one percent to 5,390,000. Passenger traffic rose by one percent to 21.909.

River barges operated by Northern Transportation Company Limited also serve the Beaverlodge Operations. During the June to October shipping season, NTCL transported 34,438 tons of freight and fuel oil for Eldorado and related projects, an increase of about 38 percent over the 1978 level.

A third transportation link is the winter road connecting Uranium City with the highway system in Saskatchewan for six weeks each winter. Some 1,034 tons moved by road, a decline from 6,300 tons a year earlier when

large tonnages of concrete moved north for the Charlot River hydro project.

In April 1979, Eldorado Aviation signed a contract for the purchase of a Boeing 737 cargo-passenger aircraft at the cost of \$16 million to replace its DC-3s and DC-4s that have serviced Beaverlodge for 26 years. Reliable, low-cost air transportation is essential to the economic viability of the Beaverlodge Operations. Maintenance of the old aircraft has become a serious problem, owing to the scarcity of parts and the increasing frequency of repair. The new aircraft is scheduled to be put into service in mid-1980.

#### **Refinery Operations**

As noted earlier, refining and conversion of uranium into products suitable for use in the manufacture of reactor fuel reached record levels. However, the production of uranium hexafluoride (UF<sub>6</sub>) was below projected levels. This reduced the revenues initially anticipated from the division.

UF<sub>6</sub> produced for shipment to foreign enrichment plants and later manufacture into fuel for light-water reactors contained a record 9.9 million pounds of uranium, an increase from 7.1 million pounds in 1978.

Uranium dioxide (UO<sub>2</sub>) production for use in fuel for CANDU reactors was 2.9 million pounds of uranium, up from 2.1 million pounds in 1978. Installation of a new UO<sub>2</sub> circuit was completed in December and it was expected to be commissioned in January.

The average radiation exposure of refinery employees was 127 millirems (mrem) during 1979 compared with the 500 mrem maximum exposure permitted for a member of the general public and the 5,000 mrem limit for atomic radiation workers. The highest employee exposure recorded was well within regulatory limits.

These exposures reflect the low level of radioactivity associated with uranium and the Company's commitment to the principle that exposure

should be kept "as low as reasonably achievable," economic and social considerations taken into account.

Progress was made during the year in the program to recycle wastes from the Port Hope plant. Following a three-month pilot project in 1978, Eldorado obtained federal and Ontario approvals to conduct a more extensive six-month recycling program beginning in October 1979

The wastes contain all of the impurities in the concentrates coming to Port Hope from uranium mines, plus concentrations of uranium which are too low to recover in the refining process. This material is being shipped to uranium mills in northern Ontario, where it is recycled. The uranium concentration in the refining waste is higher than the concentration in the ore being milled, and therefore represents an economic opportunity for the mining companies. The quantity of wastes being recycled is small. At one of the mills participating in the program, the recycled waste is less than 0.5 percent of the ore processed.

#### Research and Development

Eldorado's research and development division is one of the largest corporate organizations in Canada conducting applied research into processes for enhancing the recovery of uranium from ore and from concentrates. Equally important programs relate to the reduction and containment of wastes and the environmental effects of all operations.

During the year, the Division carried out assessments of the Beaverlodge mill and the refinery/conversion plant, assisting in efforts to increase production from both operations. Technical assistance was provided to Eldor Resources on development of a mill process for the Key Lake project. A pilot plant was constructed on the 10th level of the Beaverlodge mine as part of a study on the recovery of uranium from mine water through an ion exchange. The first yellowcake from the process was produced in early December.

#### Personnel

During the year, programs were implemented at the operating divisions to

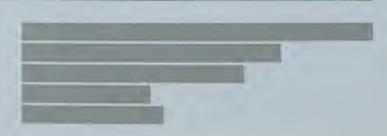
## **UF**<sub>6</sub> **Production** (pounds U)

1979	9,890,000
1978	7,096,000
1977	8,525,000
1976	7,331,000
1975	5,433,000



**UO**<sub>2</sub> **Production** (pounds U)

1979	2,919,000
1978	2,129,000
1977	1,855,000
1976	1,113,000
1975	1,188,000



improve the effectiveness of union-management consultation. Union-management teams identified key problem areas and developed and implemented plans to resolve the problems. Follow-up work is in progress to consolidate the improvements achieved to date.

As discussed earlier, Eldorado's radiation control policies and programs have resulted in keeping exposure levels for employees at both operating divisions well below the acceptable levels adopted by regulatory agencies.

In contrast to the radiation safety record, there is concern throughout the Company about conventional safety practices, particularly at Beaverlodge. An industry-wide shortage of skilled men willing to work in remote locations has led to an increase in the number of workers with little or no experience. This has contributed to an increase in industrial accidents. There has also been an increase in the number of such accidents at the refinery. Improved safety programs, including continuing joint action with the union, have been implemented.

'Significant progress has been made in the operating divisions in the development and introduction of modular training programs. These systematic training programs are designed to bring employees up to a designated standard of proficiency. At the mine, some underground work sites and equipment are dedicated exclusively to training.

Labour agreements with the United Steelworkers of America bargaining units at Beaverlodge and Port Hope expire in the first half of 1980. Negotiations commenced at both locations late in 1979 with the agreement covering shift supervisors at Beaverlodge being ratified in early December.

Effective November 1, 1979, changes were made in the management structure of the Company.

Maurice J. Moreau, previously vicepresident responsible for mining and exploration, was appointed to the newlycreated position of executive vice-president and chief operating officer.

Kenneth M. Haapanen was appointed vice-president, mining with responsibility for the Beaverlodge Operations and Eldor Resources. He will also be responsible for Eldorado Aviation. Mr. Haapanen will move to Saskatoon during 1980, becoming the senior Eldorado officer in the province.

#### **Prospects**

An improvement in production and unit cost performance in the mining and refining divisions is anticipated during 1980. Despite the expected improvement, earnings are likely to approximate those realized in 1979. Deliveries under the terms of old, low-priced concentrates and conversion contracts will account for a sizeable proportion of total 1980 sales revenue. Eldorado will have fulfilled all of its obligations under such contracts by the end of 1980. Given reasonable market conditions, earnings beyond 1980 are expected to increase gradually until 1983 when substantial new mining and refining/ conversion capacity will be in production.

Eldorado embarked on a major expansion and modernization program in 1976. In addition, the Company acquired a one-sixth equity interest in the Saskatchewan Uranium Joint Venture. A further \$250 million (1980 dollars) will be required to complete this program at existing facilities, to bring the new conversion capacity at Hope Twp. into production and to share in the cost of developing the Key Lake orebodies.

To date, the Company has financed its expansion entirely by internal cash flows and borrowings, resulting in an abnormally high debt-equity ratio. If the expansion program is to continue being financed in private debt markets, lenders will require assurances that Eldorado will continue as an agent of Her Majesty. However, should this agency status be altered by the Shareholder, the Company's financial structure will have to be reorganized.

During the 1970s, Eldorado Nuclear Limited has sold uranium concentrates and processing services to more than 50 nuclear reactor operators in 12 nations. The Company has played a vital role in the development and supply of fuel for the CANDU reactor program, which today accounts for 29 percent of Canada's non-hydro supply of electricity.

As we enter the 1980s, there is a much clearer recognition of the severe energy constraints facing all nations. The expansion program now in progress will allow Eldorado to more than double its contribution to the world's energy supply.



N.M. Ediger, Chief Executive Officer

## **Direction and Management**

Eldorado Nuclear Limited is incorporated under the Canada Business Corporations Act and listed as a proprietary corporation in Schedule D of the Financial Administration Act. Its shares are held by the Minister of Energy, Mines and Resources in trust for Her Majesty in Right of Canada. The board of directors derives its authority from the Shareholder. Directors are elec-

ted annually.

Seven members of the board are outside directors, representing a broad spectrum of business and public policy experience in Canada and elsewhere. In addition to their overall responsibilities as members of the board, each outside director serves on at least one of the board's committees.

#### **Board of Directors**

Marcel Bélanger, O.C., C.A. President Gagnon et Bélanger Inc. Quebec City, Quebec Also director of: Abitibi-Price Inc. Bell Canada Celanese Canada Limited The Great West Life Assurance Co. Le Group Commerce The Hudson's Bay Company John Labatt Limited Pratt & Whitney Aircraft of Canada Ltd. The Price Company Ltd. Proviao Inc. The National Bank of Canada

W.J. Bennett Consultant The Iron Ore Co. of Canada Ltd. Montreal, Quebec Also director of: The C.D. Howe Research Institute (Chairman) Canadian Pacific Limited Canadian Reynolds Metals Company Limited Canron Limited Cominco Ltd. Gleneagles Investment Co. Ltd. The Investors Group Peterson, Howell & Heather (Canada) Inc. Philips Canada Ltd. (Chairman)

Dr. Roger A. Blais Dean of Research Ecole Polytechnique Montreal, Quebec
Also director of:
Geostat Systems Colorado Inc.
International Development
Research Centre
Institute for Research on Public
Policy (Board of Trustees)
Mineral Exploration Research Institute

L.C. Bonnycastle, B.A., F.S.A.
Consultant
Canadian Corporate Management
Company Limited
Toronto, Ontario
Also director of:
Beaverhall Investments Ltd.
Canadian Corporate Management
Company Limited
Harlequin Enterprises Limited
Wycor Investments Limited

N.M. Ediger
President & Chief Executive Officer
Eldorado Nuclear Limited
Ottawa, Ontario
Also director of:
Canadian Nuclear Association
Council, The Uranium Institute
Eldor Resources Limited
Eldorado Aviation Limited
The Mining Association of Canada
National Council, Canadian
Institute of International Affairs

J. Gerald Godsoe, Jr. Partner Stewart, MacKeen & Covert Halifax, Nova Scotia N.G. Van Nest
President and Chief Executive Officer
Triarch Corporation Limited
Toronto, Ontario
Also director of:
Canadian Venture Capital Corporation
Dellview Holdings Limited
Elliott & Page Limited
Jonlab Investments Limited
National Business Systems Inc.
Royal Canadian Geographical Society
Triarch Corporation Limited
Young People's Theatre

Maurice A.A.C. Swertz, Sr.
President
Swertz Bros. Construction Ltd.
Weyburn, Saskatchewan
Also director of:
Frontier Homes Ltd.
Global Homes Ltd.
Lumberjack Enterprises Ltd.
Weyburn Industries Ltd.
Saskatchewan Chamber of Commerce

#### **Board Committees**

#### **Audit Committee**

M. Bélanger, Chairman L.C. Bonnycastle J.G. Godsoe, Jr.

#### **Finance Committee**

N.G. Van Nest, Chairman W.J. Bennett N.M. Ediger

# Executive Development and Compensation Committee

W.J. Bennett, Chairman R.A. Blais L.C. Bonnycastle M.A.A.C. Swertz, Sr.

#### Officers

Nicholas M. Ediger President and Chief Executive Officer

Maurice J. Moreau Executive Vice-President and Chief Operating Officer

George Boyce Vice-President, Marketing

Ronald G. Dakers Vice-President, Refining

Thomas J. Gorman Vice-President, Finance

Kenneth M. Haapanen Vice-President, Mining

James T. Lyon Vice-President and General Counsel

Sandy Mackay-Smith Assistant General Counsel and Secretary

Gordon A. Frost Treasurer

Gordon R. Burton Assistant Secretary

W. John Jussup Assistant Secretary

# Financial Review and Consolidated Statements for the year ended December 31, 1979

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#### **Financial Review**

Revenue and Earnings

Eldorado Nuclear Limited was able to report a modest profit of \$398,000 in 1979 despite a variety of operating problems. Total revenue from the sale of products and services in 1979 amounted to \$111.5 million, down ten percent from the record levels of 1978.

Production levels were considerably below budget and unit costs, which include a high percentage of fixed costs, increased dramatically. As a result, the reserve established in 1978 for anticipated losses on low-priced U<sub>3</sub>O<sub>8</sub> contracts for delivery in 1980 was increased, reducing the 1979 profit by \$12:2 million.

This reduction in revenue, production shortfalls and the increase in the reserve for anticipated losses on 1980 deliveries resulted in a 43 percent drop in gross profit to \$22 million and a reduction of the gross profit margin from 31.2 percent of sales to 19.7 percent.

Approximately \$6.6 million was spent on exploration programs during 1979, representing a continuation of Eldorado's major commitment to locate new sources of uranium.

Research and development expenditures were increased by 38.1 percent over 1978 to \$2.9 million in a continuing effort to improve process efficiency and product quality.

product quality.

As a result of the capital cost allowance available from the high levels of capital expenditure currently underway, no income taxes were payable in 1979.

Prior to year-end, the Company negotiated the cancellation of a low-priced concentrates contract with delivery scheduled for 1979 and 1980. The concentrates designated for delivery against this contract were then sold on the spot market at current prices.

#### **Financial Position**

Total assets increased in 1979 by \$11 million to \$326 million. Working capital increased and by year-end had reached \$18.4 million. Due to the high level of capital expenditures and shortfalls in production, the cash position of the Company at December 31, 1979 was reduced to \$5 million from \$36 million reported a year earlier. A short-term current liability of \$56.4 million associ-

#### Revenue

		Concentrates	Refinery Services	Other
1979 : 47779 E	\$111,498,000			
1978 (1881) 100 - 1	\$124,046,000			
1977	\$ 68,623,000			
1976 1988 99 90	\$ 47,708,000			
1975 (% 2004) 1601	\$ 48,499,000			

#### **Net Earnings**

1979	\$ 398,000
1978	\$17,618,000
1977	\$ 6,933,000
1976	\$ 3,073,000
1975	\$ 9,715,000



ated with the purchase of the interest in the Saskatchewan Uranium Joint Venture (SUJV) was converted to long-term debt with the borrowing and subsequent sale of concentrates from the Uranium Canada, Limited stockpile during 1979.

**Capital Expenditures** 

Capital spending by Eldorado Nuclear Limited reached a new high of \$56.3 million, up 47.4 percent over the previous record of \$38.2 million in 1978.

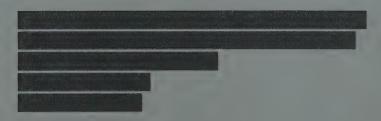
Continued expansion and rehabilitation at Beaverlodge accounted for \$30.6 million during the year. Of the total, some \$10.2 million was invested in the mine and mill, \$8.8 million on housing, \$11 million on development of the Charlot River hydro project, and \$0.6 million on related facilities.

Expenditures at the Port Hope plant during 1979 were \$16.6 million. Of this amount, \$7.6 million was spent on a new  $\rm UO_2$  circuit, \$2.9 million on increasing  $\rm UO_3$  output and upgrading related facilities, \$1.9 million on improving the  $\rm UF_6$  plant and equipment, \$1.3 million on completing the new services building and \$2.9 million on related facilities and equipment.

Expenditures for the construction of the new Hope Township UF<sub>6</sub> Conversion Plant amounted to \$8 million, mainly on

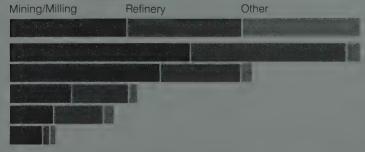
#### **Assets**

1979		\$325,965,000
1978	1	\$314,882,000
1977		\$183,775,000
1976		\$125,613,000
1975		\$117,511,000



#### **Capital Expenditures**

\$56,296,000
\$38,196,000
\$20,063,000
\$16,201,000
\$ 6,262,000



#### Capital Employed

	G
\$277,118,000	
\$226,955,000	
\$164,262,000	
\$119,009,000	
\$111,500,000	



engineering design, land acquisition and initial preparation of the site and access road.

Miscellaneous corporate capital expenditures during 1979 amounted to \$1.1 million.

Spending by Eldor Resources on the SUJV totalled \$5.8 million during 1979. Most of this spending was related to continued design engineering, environmental studies and associated dewatering tests in preparation for the development of the Key Lake ore bodies.

Eldorado Aviation's capital expenditure program during 1979 amounted to \$4 million. Almost all of this amount went as a prepayment towards the purchase of a Boeing 737 cargo-passenger aircraft scheduled for delivery in 1980 to replace the DC-3s and DC-4s presently in service.

**Capital Structure** 

The continued high level of capital expenditures and their related borrowings have distorted Eldorado's capital structure. Financing for the expansion program has relied exclusively on borrowed funds and on internal cash flow. During the past 30 years, Eldorado has never increased its equity subscriptions. As a result of these borrowings and the small equity base, the debt/equity ratio is abnormally high. With the expansion and development of new conversion capacity and the Key Lake project, the need for funds will continue to outpace internally generated cash for several years. The 1980 capital spending program alone will require \$100 million of

external financing.

#### **Income Tax**

Eldorado is subject to the full provisions of the Income Tax Act and does not enjoy any special privileges because of its ownership by the Crown. Indeed, since the Company was purchased in 1944, Eldorado has paid some \$29 million in federal income taxes.

#### Saskatchewan Uranium Royalties

The Company is subject to the provisions of the Saskatchewan Mineral Resources Act for the payment of uranium royalties. Provincial mineral royalty payments are not deductible from income for determining federal income taxes payable.

**Interim Reports** 

During 1979, the Company continued the practice of issuing Interim Reports. The table below sets out the unaudited results of operations of the Company by quarter for 1978 and 1979. The information contained therein was prepared to reflect all adjustments which were, in the opinion of the Company, necessary for a fair presentation of the results of operations for the periods presented. These adjustments include a monthly accrual of revenues anticipated on the year's fixed commitments for U<sub>3</sub>O<sub>8</sub> deliveries. The results for the fourth quarter of 1978 include the impact of a \$7.6 million provision for anticipated losses on future U<sub>3</sub>O<sub>8</sub> deliveries. The nature of Eldorado's business is such that the results of any interim report are not indicative of results for a full year.

Interim Reports (Millions of dollars)						
		Q1	Q2	Q3	Q4	Year
1978	Revenue	\$43.7	\$37.7	\$21.3	\$21.3	\$124.0
	Gross Profit	23.4	12.2	8.1	(5.0)	38.7
	Net Earnings	12.3	7.6	2.4	(4.7)	17.6
1979	Revenue	\$21.0	\$33.4	\$19.9	\$37.2	\$111.5
	Gross Profit	7.3	8.0	(2.0)	8.7	22.0
	Net Earnings	1.7	1.0	(4.0)	1.7	0.4

## Report of Management's Accountability

The accompanying financial statements and all information in the Annual Report are the responsibility of management and the Board of Directors of the Company. The financial statements were prepared by management in conformity with generally accepted accounting principles considered to be appropriate in the circumstances.

Eldorado maintains internal accounting controls which are designed to provide reasonable assurance that assets are safeguarded from loss or unauthorized use, and that reliable financial information is produced. The Company has also established a "Code of Ethics" for employees to prevent conflicts of interest on the part of employees and to ensure that there is no unauthorized disclosure by employees of confidential information. Recently the Company established an internal auditing department, whose functions include reviewing the systems of control to ensure that they are adequate and functioning properly.

Annually, the financial statements are examined by the Company's external auditor, the Auditor General of Canada. His examination is made in accordance with generally accepted auditing standards and includes a review and evaluation of the Company's system of internal accounting controls and such tests and other procedures as he deems necessary to provide reasonable assurance as to the fairness of the financial statements.

The Board of Directors, through its Audit Committee consisting solely of outside directors, is responsible for reviewing and monitoring the Company's accounting and reporting practices. The Audit Committee meets with management and the auditors to satisfy itself that their responsibilities are properly discharged. The auditors have free access to this Committee to discuss the results of their work and their opinions on the adequacy of the internal accounting controls and the quality of financial reporting.

## **Statement of Accounting Policies**

The accompanying consolidated financial statements were prepared by management in conformity with generally accepted accounting principles considered to be appropriate in the circumstances, and have been applied on a basis consistent with that of the preceding year. A summary of significant accounting policies of the Company is presented to assist the reader in interpreting the statements contained herein.

#### Consolidation

The consolidated financial statements include the accounts of Eldorado Nuclear Limited and its wholly-owned subsidiaries, Eldorado Aviation Limited and Eldor Resources Limited.

### **Inventories**

Inventories of mine concentrates and refined and converted products are valued at the lower of weighted average cost or net realizable value. Cost for

customer-owned products is the cost of the refining and conversion processes only.

Inventories of mine concentrates are initially measured and accounted for in the financial statements when the material is sealed in containers upon completion of the milling process.

#### Supplies

Operating and general supplies are carried at cost.

#### **Property and Equipment**

Assets are carried at cost. Costs of additions, betterments, and renewals are capitalized. When assets are retired or sold, the resulting gains or losses are reflected in current earnings.

Maintenance and repair expenditures are charged to cost of production.

#### Depreciation

The principal depreciation method used is the straight line method based on the estimated useful lives of the property and equipment. The estimated useful life of the majority of the property and equipment in service is 10 years.

# Mine Development and Preproduction Costs

Certain mine development and refinery costs associated with capacity additions are deferred until commencement of production. These costs are then amortized based on production over not more than 10 years. Other costs are charged to production as incurred.

# Research and Development and Exploration Costs

Expenditures for applied research and development relative to the products and processes of the Company and expenditures for geological exploration programs are charged against earnings as incurred.

#### **Pension Plan**

The Company has a contributory, defined benefit, trustee pension plan

covering all of its regular full-time employees. Assets in the pension fund are valued by a three-year moving average market value method, while liabilities are costed by the entry age normal cost method.

Pension costs are funded and recorded at rates confirmed by the consulting actuary pursuant to periodic actuarial revaluations. All actuarially-determined unfunded liabilities are amortized and funded over periods that adequately reflect their specific nature, up to a maximum of 15 years.

#### Sales of Products and Services

In accordance with normal industry practices, the Company contracts for future delivery of mine concentrates and refinery conversion services. Sales revenue is recorded in the fiscal year that title passes or, with customer-owned material, when delivery is effected.

#### Foreign Exchange

Accounts receivable and accounts payable denominated in foreign currencies are translated into Canadian dollars at rates of exchange in effect at year-end; income and expenses at rates in effect during the year. Gains or losses resulting from such translation practices are reflected in the statement of consolidated earnings and retained earnings.

#### **Income Tax**

The Company follows the tax allocation method of providing for income taxes. Taxable income may be different from reported earnings before taxes because certain items of income and expense are recorded in time periods different for tax purposes from those for accounting purposes. The difference between the taxes calculated as payable each year and those charged against earnings on the tax allocation method is accumulated and carried forward in the statement of consolidated financial position under the caption deferred taxes.

# **Statement of Consolidated Earnings and Retained Earnings**

For the year ended December 31st	1979	1978
Revenue Sales of products and services	\$111,498,000	\$124,046,000
Expenses Cost of products and services sold Exploration Research and development Administration Other (income) and expense	89,545,000 6,579,000 2,858,000 4,992,000 1,431,000	85,328,000 4,194,000 2,069,000 4,350,000 (80,000)
Total Expenses	105,405,000	95,861,000
Earnings before taxes and extraordinary item Income taxes and mineral royalties	6,093,000 5,695,000	28,185,000 11,055,000
Earnings before extraordinary item Reduction of income taxes due to loss carry forwards	398,000 —	17,130,000 488,000
Net earnings	398,000	17,618,000
Retained earnings at beginning of year	73,120,000	55,502,000
Retained earnings at end of year	\$ 73,518,000	\$ 73,120,000

The accompanying notes to Consolidated Financial Statements are an integral part of this statement.

## **Statement of Consolidated Financial Position**

As at December 31st	1979	1978
Current assets Cash and short-term investments at cost Accounts receivable Mine concentrates on loan Inventories Supplies Prepaid expenses	\$ 5,249,000 19,613,000 8,596,000 16,555,000 12,603,000 4,607,000 67,223,000	\$ 36,076,000 32,137,000 9,413,000 8,937,000 8,996,000 749,000 96,308,000
Current liabilities		
Accounts payable Long-term debt due within one year Promissory note	20,628,000 12,153,000 —	16,451,000 11,262,000 56,394,000
Provision for loss on uncompleted contracts	16,066,000	3,820,000
	48,847,000	87,927,000
Working capital	18,376,000	8,381,000
Non-current assets Investment in joint venture Mine concentrates on loan Property and equipment, net Deferred charges Accounts receivable Other assets	107,351,000 10,678,000 132,502,000 6,458,000 — 1,753,000 258,742,000	96,316,000 25,696,000 85,013,000 5,098,000 4,428,000 2,023,000 218,574,000
Capital employed	277,118,000	226,955,000
Represented by: Long-term debt Other liabilities Deferred taxes	183,093,000 5,077,000 8,844,000 197,014,000	130,366,000 9,534,000 7,349,000 147,249,000
Shareholder's equity Share capital Retained earnings	6,586,000 73,518,000 <i>80,104,000</i> \$277,118,000	6,586,000 73,120,000 <i>79,706,000</i> \$226,955,000

The accompanying notes to Consolidated Financial Statements are an integral part of this statement. Approved by the Board of Directors on February 5, 1980.

Marcel Belanger

# **Statement of Changes in Consolidated Financial Position**

For the year ended December 31st	1979	1978
Source of working capital		
From operations:  Earnings before extraordinary item  Add charges to earnings which did  not require working capital:	\$ 398,000	\$ 17,130,000
Depreciation and amortization Deferred taxes	9,978,000 1,495,000 <i>11,871,000</i>	8,400,000 7,349,000 <i>32,879,000</i>
Increase in long-term debt Mine concentrates repaid and due	64,880,000	45,214,000
within one year  Decrease in accounts receivable  Reduction of income taxes due to	32,413,000 4,428,000	10,230,000 6,640,000
loss carry forward		488,000
	113,592,000	95,451,000
Use of working capital		
Decrease (increase) in other liabilities Increase in carrying value of mine	3,820,000	(3,820,000)
concentrates on loan Additions to property and equipment Investment in joint venture Long-term debt due within one year Other	17,394,000 56,063,000 11,035,000 12,153,000 3,132,000	10,328,000 38,188,000 96,316,000 11,262,000 1,737,000
	103,597,000	154,011,000
Increase (decrease) in working capital	9,995,000	(58,560,000)
Working capital at beginning of year	8,381,000	66,941,000
Working capital at end of year	\$ 18,376,000	\$ 8,381,000

The accompanying notes to Consolidated Financial Statements are an integral part of this statement.

#### **Notes to Consolidated Financial Statements**

for the year ended December 31st, 1979

#### 1. Eldorado Nuclear Limited

Eldorado Nuclear Limited, incorporated under the Canada Corporations Act, filed for continuance under the Canada Business Corporations Act in 1979 and on December 28, 1979 received its certificate of continuance. The Company is subject to the Financial Administration Act and the Government Companies Operation Act. The outstanding shares were acquired by the federal government in 1944 to secure a source of uranium for Canada.

The Company, wholly-owned by Her Majesty in Right of Canada, is involved in various aspects of the nuclear fuel cycle, primarily the exploration, mining and refining of uranium.

Eldorado's Beaverlodge mine in northwestern Saskatchewan produces uranium mine concentrates. Most sales, to electrical utilities, are made under long-term, annual delivery contracts, and title transfer is generally made at the Company's refinery prior to further processing. All export contracts must first be approved by federal regulatory agencies.

The plant at Port Hope refines uranium concentrates and converts the pure uranium to produce uranium dioxide powder and uranium hexafluoride as steps in the nuclear fuel cycle. Utility customers from many nations send material to Port Hope for such processing, and Eldorado delivers the converted product to fabricators in Canada or to enrichment plants in the United States, Europe and the USSR. At year-end 1979, the refinery held 27 million pounds of customer-owned uranium at various stages of processing. All exports of material on behalf of customers require a licence from federal regulatory agencies.

The Port Hope operation also includes storage facilities for the federal government's uranium stockpile, as well as metallurgical facilities to produce depleted uranium metal, experimental fuels, and various other related products.

The Company's wholly-owned subsidiary, Eldor Resources Limited, owns

a one-sixth interest in the Saskatchewan Uranium Joint Venture which is developing new uranium properties at Key Lake in northern Saskatchewan.

Each year, after the normal preparation, review and approval of budgets by the Board of Directors of Eldorado for the next calendar year, the Company submits the capital budget for approval by the Governor-in-Council upon recommendation of the Minister of Energy, Mines and Resources, the Minister of Finance, and the President of the Treasury Board. This budget is subsequently tabled in Parliament.

#### 2. Accounting Policies

A statement of significant accounting policies of the Company is provided on page 19.

#### 3. Other Income and Expense

1979	1978
\$ 6,111 	\$ 6,118 913 272
(3,840) (987) \$ 1,431	(4,478) (2,905) \$ (80)
	\$ 6,111 - 147 (3,840) (987)

# 4. Income Taxes and Mineral Royalties

The provisions for income taxes and mineral royalties were as follows:

	1979	1978
(Thousands of dollars)		
Income Taxes — current	\$	\$ 488
deferred	1,495	7,349
	1,495	7,837
Mineral royalties	4,200	3,218
	\$5,695	\$11,055

The reconciliation between the federal statutory income tax rate and the Company's effective rate of income tax and mineral royalties is as follows:

Percentage of Pre-tax Earnings	1979	1978
Federal statutory income tax rate Resource and depletion allowances	46.0 (24.4)	46.0 (19.3)
Adjusted income tax rate	21.6	26.7
Inventory allowance Research allowance Non-deductibility of income debenture interest	(10.0) (6.9) 20.5	(1.4) (0.4) 3.4
Other	(0.6)	(0.5)
Effective income tax rate	24.6	27.8
Mineral royalties	68.9	11.4
Net effective rate	93.5	. 39.2

Provincial mineral royalties, which are not deductible for federal income tax purposes, are calculated in part as a percentage of revenues and consequently the effective rate can fluctuate drastically from year to year.

As the result of an audit of taxation years prior to 1977, the Company received reassessment notices in 1978 increasing income for tax purposes and decreasing tax loss carry forwards by approximately \$4.0 million. The Company filed a Notice of Objection with respect to these reassessments. However, to date no formal decision has been reached.

#### 5. Mine Concentrates on Loan

Mine concentrates on loan are recorded at current inventory cost, which is lower than net realizable value. These costs are classified as either current or non-current assets, according to scheduled or estimated repayments. The mine concentrates on loan are secured by the pledging of marketable securities and a fixed and floating charge over the borrower's assets.

Income from the mine concentrates on loan is included in revenues in the amount of \$6.5 million (1978 — \$7.8 million).

## 6. Property and Equipment

	1979	1978
(Thousands of dollars)		
Land	\$ 2,353 55,866	\$ 2,127 38,265
Buildings Equipment	144,205	114,975
Construction in progress	16,012 218,436	7,665 163,032
Less accumulated depreciation	85,934	78,019
December 1	\$132,502	\$ 85,013
Depreciation for year	\$ 8,574	\$ 8,114

#### 7. Deferred Charges

At a second seco		1979	1978
(Thousands of dollars)			
Mine development Refinery preproduction	\$	5,523 935	\$ 4,774 324
	\$.	6,458	\$ 5,098
Amortization for year	\$	1,404	\$ 286

#### 8. Long-Term Debt

	1979	1978
(Thousands of dollars)		
i) From Canada		
8%% notes due 1978-80 7% note due 1979 5%6% notes due 1980 41%6% notes due 1981 6½% notes due 1982 5%% notes due 1983 6%% notes due 1984	\$ 605 	\$ 4.737 7,130 11,548 7,762 10,062 5,082 10,093
ii) Other Floating rate income debentures due 1983	40,000	40,000
iii) Mine concentrates borrowed	110,094	45,214
Sub-total Sub-total	195,246	141,628
Less: Current portion of long- term debt listed above	12,153	11,262
Total	\$183,093	\$130,366

#### 8. a) Loans from Canada and other

Prepayment of the notes from Canada may be made in specified groups without premium or penalty. The income debentures bear interest at approximately one-half of the banks' prime lending rate.

The long-term debt payments due in each of the next five years are as follows:

1980-\$12,153,000; 1981-\$7,762,000;

1982-\$10,062,000; 1983-\$45,082,000; 1984-\$10,093,000.

#### 8. b) Mine concentrates borrowed

	1979	1978
(Thousands of dollars)		
i) Due by Eldor Resources     Limited     ii) Due by Eldorado Nuclear	\$110,094	\$37,422
Limited		7,792
Address of the Control of the Policy of the Control	\$110,094	\$ 45,214

i) Due by Eldor Resources Limited In conjunction with the purchase of its interest in the Key Lake joint venture, Eldor Resources Limited arranged with Uranium Canada, Limited (UCAN) for a loan of two million pounds of uranium mine concentrates ( $U_3O_8$ ) from the Government of Canada stockpile. This material, of which 730,600 pounds were drawn in 1978 and 1,269,400 pounds in 1979, was sold at world market prices to fund the Key Lake acquisition.

Under the terms of the agreement, Eldor must pay interest on the loan value of borrowed concentrates (the loan value being the price at which it sells the concentrates to its customers) at a rate equal to that charged by the federal government on five-year loans to Crown corporations as of the initial loan date (initially 9%%). This rate is then negotiable every five years thereafter.

The interest payable to UCAN under the loan agreement is recorded as an increase to the investment in the joint venture and payment is deferred until commencement of commercial production. This deferred interest is then payable out of the operation's cash flow.

After commencement of operations, the loan will be repaid in annual instalments, subject to minimum quantity restrictions, with full repayment required by 2010. As Eldor repays the borrowed concentrates, any difference between the average unit loan value and  $U_3O_8$  inventory costs will be included in the statement of consolidated earnings and retained earnings in that year.

As collateral for the loan, Eldor has given UCAN a debenture of \$200 million which is secured by a fixed and floating charge on all of its assets and undertakings, both present and future. If Eldor is unable to meet its obligations to return borrowed concentrates on schedule, UCAN has access to Eldor's undivided one-sixth equity interest in the joint venture. The Key Lake discovery alone, which forms part of the joint venture's assets, is estimated to contain 150 million pounds of uranium in the two defined ore bodies.

ii) Due by Eldorado Nuclear Limited At year-end 1978, the Company borrowed uranium mine concentrates from the Government of Canada stockpile through Uranium Canada, Limited to cover a production shortfall from the Beaverlodge mine. In May 1979 the loan was repaid.

#### 9. Sales Contracts

At December 31, 1979, the Company had commitments for the delivery of 9,202,000 pounds of uranium mine concentrates from 1980 to 1986. Provision was established in 1978 for anticipated losses on low-priced U<sub>3</sub>O<sub>8</sub> deliveries in 1980 and was increased in 1979 by \$12,246,000. This amount is shown in current liabilities. During 1979, the Company was able to negotiate the cancellation of a sales contract on which significant losses had been accrued.

#### 10. Share Capital

	1979	1978
(Thousands of dollars)		
Authorized: An unlimited number of common shares of no par value		
Issued and fully paid: 70.500 shares to Canada	\$6.586	\$6,586

#### 11. Commitments and Contingencies

a) The last actuarial valuation of the Eldorado Pension Plan (1959), as of December 31, 1978, revealed a liability of \$4,663,456 for the Eldorado com-

## **Glossary of Financial Terms**

continued from page 28

net, refers to property and equipment at cost less accumulated depreciation.

Relative size, expressed as the number of times one quantity is contained in another.

Portion of a company's aggregate income since incorporation which remains invested in the operation after distribution of dividends to shareholders.

The ratio of net earnings to shareholder's equity.

The ratio of net earnings to capital employed.

Inflow of cash or receivables from customers or clients in return for goods, services, or interest on investments.

Authorized Capital - The number and par value, if any, of shares of each class of capital stock that a company may issue in accordance with its instrument of incorporation.

Issued Capital - The portion of author-

ized capital stock for which shares have been subscribed, allotted and entered in the share register.

Company which is controlled by another company usually through its ownership of the majority of shares.

Materials which are consumed in the operations of a business but do not become part of the physical content of any finished product and are not held for sale in the ordinary course of business.

The excess of current assets over current liabilities.

The ratio of current assets to current liabilities.

- \* Terms reprinted with permission from the booklet "ABC's of Accounting" published by the Certified General Accountants Association of Ontario.
- \*Terms reprinted with permission from the booklet "Terminology for Accountants" published by the Canadian Institute of Chartered Accountants.

## **Auditor's Report**

The Honourable Ray Hnatyshyn, P.C. M.P., Minister of Energy, Mines and Resources, Ottawa, Ontario

I have examined the statement of consolidated financial position of Eldorado Nuclear Limited as at December 31, 1979 and the statements of consolidated earnings and retained earnings and changes in consolidated financial position for the year then ended. My examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as I considered necessary in the circumstances.

In my opinion, these consolidated financial statements give a true and fair view of the financial position of the Company as at December 31, 1979 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

I further report that, in my opinion, proper books of account have been kept by the Company, the financial statements are in agreement therewith and the transactions that have come under my notice have been within its statutory powers.

J.J. Macdonell Auditor General of Canada

Ottawa, Ontario February 5, 1980 panies compared to \$5,034,740 at December 31, 1976. The total unfunded liability is being amortized and funded over 13 years as provided in Eldorado's accounting policies and the Pension Benefits Standards Act.

- b) The Company has entered into longterm leases on certain properties up to 1985 with annual rental payments averaging \$455,000.
- c) Through its wholly-owned subsidiary Eldor Resources Limited, the Company is a one-sixth partner in a joint venture that discovered and intends to develop the ore bodies near Key Lake, Saskatchewan. In accordance with the partnership agreement, Eldor is obligated to meet its proportionate share of the commitments of the joint venture. At December 31, 1979 Eldor's share of the preliminary estimated cost to commence production is approximately \$60 million.

d) The Company has plans for the expansion of its refining and conversion capacity to meet projected increases in world demand for uranium.

During 1979, the federal government authorized the selection of the Hope Township Site for the location of the new Ontario uranium conversion plant to produce UF<sub>6</sub>. This expansion is intended to ensure that the production of Canadian uranium concentrates will be processed in Canada. The capital cost of the new Ontario conversion plant to be incurred from 1980 is projected at approximately \$113 million. The plant is expected to be ready for operation by mid-1982.

The Company has entered into contracts in connection with the construction of its new Ontario uranium conversion plant and as at December 31, 1979 has made commitments of approximately \$5.4 million.

e) On April 12, 1979 Eldorado Aviation Limited entered into a contract with Boeing Corporation of Seattle for the purchase of a Boeing 737 combination cargo/passenger aircraft at a cost of approximately \$16.1 million. As at December 31, 1979 approximately \$4.2 million of the purchase price has been paid with the balance due in 1980.

f) In connection with its operations, the Company is the defendant in certain pending or threatened litigations. It is the opinion of management, based on legal counsel, that these actions will not result in any material liabilities to the Company.

12. Supplementary Information

a) The Company's by-laws provide for between seven and ten Directors. At December 31, 1979 the Company had eight Directors and 11 Officers. One of the Directors was also an Officer.

Remuneration of Officers as Officers in 1979 totalled \$540,366; and remuneration of Directors as Directors in 1979 totalled \$49,500.

- **b)** During 1979, sales commissions totalling \$429,433 were paid to Marubeni Corporation, who have been retained as sales agents since 1960.
- c) During 1979 the Company received clearance from the Anti-Inflation Board that it had complied with the provisions of the Anti-Inflation Act and Regulations for the final compliance period ending December 31, 1978.
- d) Certain 1978 accounts have been reclassified for comparison purposes.

## **Glossary of Financial Terms**

#### **Amortization**

Application of a deferred charge to the expense of a business proportionately over a fixed period.

#### Asset\*

Anything of value owned by a company or individual.

#### Capital

- (1) What is owned by a company or individual minus what is owed at a specified time.
- (2) Total investments of owners (share-holders) of a business at a given time, which may be calculated by subtracting from the total assets all the liabilities of those other than the owners.

#### **Capital Employed**

All non-current assets of a business plus working capital.

#### Capital Expenditure\*\*

An expenditure to acquire or add to a capital asset; an expenditure yielding enduring benefits.

#### Commitment

An anticipated expenditure, evidenced by a contract or purchase order given to an outsider, or a definite intention to assume a financial obligation at a future date.

#### Consolidation\*

A parent plus one or more subsidiary companies which present financial reports for the group as a whole, not as separate entities.

#### Contingent Liability\*\*

A legal obligation that may arise in the future out of past and/or present circumstances provided certain developments occur.

#### Corporation\*

Legal entity or corporate person with authority to operate under provincial or federal statutes, usually formed to make a profit. Owners are liable for the debts only up to the amount of their investment.

#### **Current Asset\*\***

Unrestricted cash or other asset that, in the normal course of operations, is expected to be converted into cash or consumed in the production of income within one year or within the normal operating cycle where that is longer than a year.

#### Current Liability\*\*

A liability whose regular and ordinary liquidation is expected to occur within one year or within the normal operating cycle where that is longer than a year. A liability otherwise classified as current

but for which provision has been made for payment from other than current resources should be excluded.

#### **Debt to Capital Employed Ratio**

The proportion of capital employed represented by long-term debt.

#### **Deferred Charge\*\***

- (1) A long-term expense prepayment; an expenditure, other than a capital expenditure, the benefit of which will extend over a period of years from the time of incurrence and meanwhile is carried forward to be charged to expense over a period of years.
- (2) Balance of amounts paid for goods or services received for which the payee has no further obligation and meanwhile is carried forward to be charged to expense in future years.

#### **Deferred Taxes\*\***

The accumulated amounts by which income taxes charged in the accounts have been increased (accumulated tax allocation credit) or decreased (accumulated tax allocation debit) as a result of timing differences.

#### Depreciation\*

Gradual reduction of the cost of a fixed asset and gradual application of this cost to the expense of a business over the useful life of the asset.

#### Earnings

Total revenue less total expenditures for a period of time calculated in accordance with generally accepted accounting principles. Net earnings refers to earnings after deduction of related income taxes.

#### Earnings Per Share\*\*

The portion of earnings for a period attributable to a share of issued capital of a corporation. The calculation of earnings per share is relevant only with respect to shares whose rights to participate in the earnings have no upper limit.

#### Equity\*

- (1) A right or claim to the assets of a company. Both owners and creditors have equity in a business.
- (2) Amount that a business is worth beyond what it owes.

#### Financial Position\*

The state of affairs of an organization represented by the assets, liabilities and owners' equity at any specified time.

#### **Gross Profit\*\***

The difference between cost and selling price; excess of net sales over the cost of goods sold.

#### **Gross Profit Margin\*\***

The ratio of gross protit to revenue

#### Interest Coverage Ratio\*\*

The ratio of net income before interest on long-term liabilities and income taxes to interest on long-term liabilities.

#### Inventory\*\*

- (1) An itemized list of goods; the annual or other periodic account of stock taken in a business; the articles that are inventoried.
- (2) Items of tangible property which are held for sale in the ordinary course of business, or are in the process of production for such sale, or are to be currently consumed in the production of goods or services to be available for sale.

#### Investment\*

Funds committed to something tangible or intangible in order to receive a return either in income or use.

#### Liability'

- (1) An amount owed to another, not necessarily due to be paid immediately.
- (2) An obligation to remit money or services at a future date.

#### Long-Term Liability\*\*

A liability which, in the ordinary course of business, will not be liquidated within one year or within the normal operating cycle where that is longer than a year.

#### **Operating Profit**

The excess of the revenues of a business enterprise over the expenses pertaining thereto, excluding "other" income and expense since they are derived from sources other than its regular activities.

#### **Operating Profit Margin**

The ratio of operating profit to revenue.

#### Prepaid Expense\*\*

- (1) A short-term expense prepayment, an expenditure, other than an outlay for inventory or a capital expenditure, which is expected to yield its benefits in the near future and meanwhile is carried forward to be charged to expense in the near future.
- (2) Balance of amounts paid for services not yet received from the payee and which meanwhile is carried to be charged to expense in future years.

#### **Property and Equipment**

Property or equipment of a tangible nature owned by a business for use in its operations (not for sale), which is expected to have a useful life of several fiscal periods. Property and equipment,

# 5-Year Summary of Operations

	1979	1978	1977	1976	1975
Income and Expenses (\$000)					
Revenue Gross Profit* Operating Profit Net earnings Net earnings per share (\$)	\$111,498 21,953 7,524 398 5.66	\$124,046 38,718 28,105 17,618 249.90	\$ 68,623 27,460 15,662 6,933 98.34	\$ 47,708 12,612 5,113 3,073 43.59	\$ 48,499 17,883 10,447 9,715* 137.80
Financial Position at Year End (\$0	000)				
Working capital Net property and equipment Total assets Long-term debt Shareholder's equity Shareholder's equity per share	\$ 18,376 132,502 325,965 183,093 80,104 1,136.23	\$ 8,381 85,013 314,882 130,366 79,706 1130.58	\$ 66,941 54,940 183,775 96,414 62,088 880.68	\$ 57,639 41,113 125,613 59,272 55,155 782.34	\$ 69,413 30,663 117,511 55,640 52,081 738.74
Capital Outlays (\$000)					
Capital expenditures Depreciation and amortization	\$ 56,296 9,978	\$ 38,196 8,400	\$ 20,063 6,040	\$ 16,201 5,813	\$ 6,262 3,216
Significant Financial Ratios					
Gross profit margin Operating profit margin Return on equity Return on capital employed Debt to capital employed Interest coverage ratio Working capital ratio	19.7% 6.7% 0.5% 0.1% .66 1.3 1.4	31.2% 22.7% 22.1% 7.8% .57 5.0 1.1	40.0% 22.8% 11.2% 4.2% .59 2.7 4.4	26.4% 10.7% 5.6% 2.6% .50 1.8 9.7	36.9% 21.5% 18.6% 8.7% .50 3.8 12.5
Selected Operating Statistics					
Number of employees at year-end Ore mined (000 tons) U <sub>3</sub> 0 <sub>8</sub> produced (000 lbs.) UF <sub>6</sub> processed (000 lbs. U) U0 <sub>2</sub> processed (000 lbs. U)	1,610 312 1,006 9,890 2,919	1,499 307 1,283 7,096 2,129	1,288 256 1,185 8,525 1,855	1,105 196 1,188 7,331 1,113	910 168 986 5,433 1,188

<sup>\*</sup>Restated for comparative purposes

\*A change in the method of accounting for inventories of mine concentrates from FIFO to weighted average cost caused a decrease in reported earnings for 1975 of \$4,061,000.

Pour se procurer le rapport annuel d'Eldorado Nucléaire Limitée en version française, s'adresser par écrit au siège de la Compagnie: Suite 400, 255 rue Albert, Ottawa, Ontario, K1P 6A9.

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